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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,590	04/04/2006	Tetsujiro Kondo	285899US6PCT	3966
22850	7590	07/14/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER VILLECCO, JOHN M				
ART UNIT		PAPER NUMBER		
2622				
NOTIFICATION DATE		DELIVERY MODE		
07/14/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/574,590

Applicant(s)

KONDO ET AL.

Examiner

JOHN M. VILLECCO

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-12,15,17-31,33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-12,15 and 17-31 is/are allowed.
- 6) ☒ Claim(s) 1,2,33 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 13-15 of applicant's response, filed April 14, 2009, with respect to the rejection(s) of claim(s) 1, 2, and 33 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the same previously cited Rosenthal reference (U.S. Patent No. 6,985,294).
2. The Examiner disagrees that the two different Rosenthal patents disclose different embodiments of the same invention. The Examiner maintains that one of the inventions is for capturing a full spectrum image and the other is for displaying a full spectrum image. However, since the two patents never disclose that they are used together (i.e. that the display of the '000 patent is used for displaying the image captured by the '294 patent), the Examiner agrees with the applicant's assertion that the '294 patent does not anticipate the claimed invention. However, upon further consideration, the Examiner feels that a 35 U.S.C. 103 rejection would have been more appropriate.
3. Please see the new grounds of rejection on the following pages.
4. Additionally, applicant has not overcome the objection to the title.
5. Since this new grounds of rejection was not necessitated by amendment, this action is non-final.

Specification

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1, 2, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenthal et al. (U.S. Patent No. 6,985,294).**

9. Regarding *claim 1*, Rosenthal discloses a color projector for displaying a full spectrum image. Additionally, Rosenthal discloses that application 10/798,159 (now patent number 7,437,000, hereinafter referred to as the '000 patent), which is incorporated by reference, includes the capture of a full spectrum image. More specifically and as it relates to the applicant's claims, Rosenthal discloses a first dividing means (diffraction grating, 14 of the '000 patent) for dividing an optical image of an object into a spectrum, and a detecting means (photosensitive line array, 16 of the '000 patent) for detecting the spectrum obtained by the first dividing means (diffraction grating, 14 of the '000 patent) and outputting image data based on the detected spectrum. See column 2, lines 29-50 and column 3, lines 8-33 of the '000 patent. The '000 patent, however, discloses capturing the spectral signature of a pixel and outputting it to a computer for display, not specifically to the spectral imaging projector of the '294 patent.

Rosenthal '294 discloses a second dividing means (diffraction grating, 5) for dividing white light (col. 3, lines 63-67) into a spectrum (col. 5, lines 16-25), extracting means (digital micro-mirror modulator array, 6) for extracting from the spectrum of white light divided into the spectrum by the second dividing means (diffraction grating, 5), spectrum portions based on image data (col. 5, line 37 to column 6, line 9), synthesizing means (also the digital micromirror modulator array, 6) for synthesizing the spectrum portions extracted by the extracting means, and a projecting means (scanning front surface mirror, 10) for projecting light formed by synthesizing the spectrum portions by the synthesizing means. While not specifically disclosed in the same embodiment, one of ordinary skill in the art could have easily implemented the method for displaying a full spectrum image in Rosenthal '294 with the full spectrum capturing apparatus of Rosenthal '000 in order to form a higher quality image. As taught by Rosenthal '294 in column 2, lines 8-28 the display of a full spectrum image more precisely replicates the human visual system.

10. **Claim 2** is considered a method claim corresponding to claim 1. Please see the discussion of claim 1 above.

11. **Claim 33** is considered to be substantively equivalent to claim 1. Please see the discussion of claim 1 on the preceding pages.

12. As for **claim 34**, Rosenthal '294 discloses that the micromirror array is controlled by the drive electronic module (7). This is interpreted to be the image synthesizing processor.

Allowable Subject Matter

13. Claims 5-12, 15, and 17-31 allowed.

14. The following is an examiner's statement of reasons for allowance:

Regarding claim 6, the primary reason for allowance is that the prior art fails to teach or reasonably suggest that the separating means includes a slit and an adjusting means, the adjusting means adjusting the position where the optical image of the object is incident upon the slit.

As for claim 21, the primary reason for allowance is that the prior art fails to teach or reasonably suggest that the synthesizing means includes a synthesizing prism for synthesizing the spectrum portions extracted by the extracting means.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. VILLECCO whose telephone number is (571)272-7319. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN M. VILLECCO/
Primary Examiner, Art Unit 2622
July 9, 2009